Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (original) A method for treating a cerebral vascular disease in a human or non-human animal, the method comprising the step of:

reducing 20-HETE synthesizing enzyme activity in the animal sufficiently to increase or prevent a decrease in cerebral blood flow in the animal.

2. (original) The method of Claim 1, wherein the cerebral vascular disease is selected from occlusive strokes, hemorrhagic strokes, migraine headaches, cerebrovasospasm, infections, conditions caused by traumatic head and brain injury, and chronic neurological diseases associated with reduced blood flow.

3. (original) The method of Claim 2, wherein the chronic neurological disease associated with reduced blood flow is selected from Alzheimer's disease, dementia, Parkinson's disease and Huntington disease.

4. (original) The method of Claim 1, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by administering a 20-HETE synthesizing enzyme inhibitor into the animal.

5. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is selected from HET0016, 17-ODYA, dibromododecenyl methylsulfimide, 1-aminobenzotriazole, and miconazole.

6. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is an antibody to 20-HETE synthesizing enzyme.

7. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is HET0016.

8. (original) The method of Claim 7, wherein the dose of HET0016 is sufficient so that the blood concentration of HET0016 is between about 1 nM and about 1,000 nM.

9. (original) The method of Claim 7, wherein the dose of HET0016 is sufficient so that the blood concentration of HET0016 is between about 2 nM and about 25 nM.

10. (original) The method of Claim 7, wherein HET0016 is administered intravenously.

11. (currently amended) The method of ~~eCaim~~ Claim 10, wherein the dose of HET0016 is between about 0.003 mg/kg body weight and about 10 mg/kg body weight.

12. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is a CYP4A inhibitor.

13. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is a CYP4F inhibitor.

14. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is administered orally.

15. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is administered intravenously.

16. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is administered subcutaneously.

17. (original) The method of Claim 4, wherein the 20-HETE synthesizing enzyme inhibitor is administered into CSF intrathecally via a subdural or intracerebroventricular injection.

18. (original) The method of Claim 1, wherein the cerebral vascular disease is cerebrovasospasm after subarachnoid hemorrhage,

19. (original) The method of Claim 18, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by administering HET0016 into the animal.

20. (original) The method of Claim 19, wherein HET0016 is administered intravenously.

21. (original) The method of Claim 20, wherein the dose of HET0016 is between about 0.003 mg/kg body weight and about 10 mg/kg body weight.

22. (original) The method of Claim 18, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by administering 17-ODYA into the animal.

23. (original) The method of Claim 22, wherein 17-ODYA is administered into cerebrospinal fluid.

24. (original) The method of Claim 23, wherein the dose of 17-ODYA is sufficient to produce a final concentration in cerebrospinal fluid between about 1 μM and about 10 μM.

25. (original) The method of Claim 18, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by administering DDMS to the animal.

26. (original) The method of Claim 25, wherein the dose of DDMS is sufficient to produce a final concentration of about 10 μM in cerebrospinal fluid.

27. (original) The method of Claim 1, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by reducing the level of 20-HETE synthesizing enzyme.

28. (original) The method of Claim 1, wherein reducing 20-HETE synthesizing enzyme activity is accomplished by administering an anti-sense oligonucleotide to the animal.

29. (original) The method of Claim 28, wherein the oligonucleotide is DNA.

30. (original) The method of Claim 29, wherein the DNA has a nucleotide sequence identical to SEQ ID NO: 1.

31. (original) The method of Claim 29, wherein the DNA has a nucleotide sequence identical to SEQ ID NO: 3.

32. (original) The method of Claim 28, wherein the oligonucleotide is RNA.

33. (original) The method of Claim 32, wherein the RNA has a nucleotide sequence identical to SEQ ID NO: 2.

34. (original) The method of Claim 32, wherein the RNA has a nucleotide sequence identical to SEQ ID NO: 4.

35. (original) The method of Claim 28, wherein the oligonucleotide is administered intravenously.

~~34~~ 36. (currently amended) The method of Claim 28, wherein the oligonucleotide is administered into cerebrospinal fluid of the animal.